

REMARKS

The remainder of this Supplemental Reply is set forth under appropriate subheadings for the convenience of the Examiner.

Claim Rejections Under 35 U.S.C. § 103(a)

A. Summary of the Rejections

The claims of the present application stand rejected under 35 U.S.C. § 103(a) as being unpatentable in view of the previously-cited references: U.S. Patent No. 5,485,504 to Ohnsorge ("Ohnsorge"), WO 93/18428 to Spitzer ("Spitzer"), U.S. Patent No. 4,010,322 to Nathanson ("Nathanson"), U.S. Patent No. 5,197,332 to Shennib ("Shennib") and EP 0 551 781 A1 to Suzuki ("Suzuki"), and a newly-cited reference, EP 0 438 362 to Suwa, *et al.* ("Suwa").

The Examiner states that the cited references, in combination, teach limitations recited in the claims of the application. In particular, the Examiner cited Ohnsorge for teaching a portable communication device. With respect to Ohnsorge, the Examiner stated that "Ohnsorge does not specifically disclose[s] that the liquid crystal display having an active matrix circuit and an array of at least 300,000 pixel electrodes, a light source for backlighting the display panel, a display driver circuit, and a battery ... and the display driver circuit, and a lens ..., wherein the active matrix display panel, the light source and the lens are located on a single optical axis extending along a line of sight of the user." The Examiner cited Spitzer for remedying the deficiencies of Ohnsorge in that Ohnsorge does not teach a liquid crystal display having an active matrix circuit and an array of at least 300,000 pixel electrodes, a light source for backlighting the display panel, a display driver circuit. The Examiner cited Nathanson for remedying the deficiencies of Ohnsorge and Spitzer in that these references do not teach a liquid crystal display having a battery and a lens. The Examiner further cited Suwa for remedying the deficiencies of Ohnsorge, Spitzer and Nathanson in that these references do not teach a liquid crystal display having an active matrix display panel having an active matrix circuit and an array of at least 300,000 pixel electrodes; a lens magnifying an image displayed on the display panel; and a light

source, wherein the active matrix display panel, the lens and the light source are located on a single optical axis extending along a line of sight of the user.

In particular, with respect to Suwa, the Examiner stated that Suwa discloses "portable display device including a lens magnifying an image displayed on the display panel for viewing by a user, wherein the active matrix display panel, the light source and the lens are located on a single optical axis extending along a line of sight of the user (see Fig. 6 and 8A)" (page 3, 3rd full paragraph of the Office Action dated September 20, 2006). This Examiner's assertion is in error for the reasons set forth below.

B. Applicants' Claimed Invention Are Non-obvious in View of Ohnsorge, Spitzer, Nathanson, Shennib, Suzuki and Suwa

As amended in the Amendment filed June 28, 2006, Applicants' claimed invention of independent Claim 21 is directed to a portable wireless communication device that includes an active matrix liquid crystal display panel having an active matrix circuit and an array of at least 300,000 pixel electrodes, a light source, a display driver circuit coupled to the active matrix circuit and a lens magnifying an image displayed on the display panel for viewing by a user. The active matrix liquid display panel, the light source and the lens are located on a single optical axis extending along a line of sight of the user. Independent Claims 40 and 107 also recite these elements and their relationship.

The primary reference, Ohnsorge, discloses a mobile radiotelephone device that employs a flat liquid crystal display (5). However, Ohnsorge does not disclose or suggest a portable communication device as claimed by Applicants. In particular, Ohnsorge does not disclose or suggest a portable communication device that includes an active matrix liquid crystal display panel including an active matrix circuit circuit and an array of at least 300,000 pixel electrodes. Moreover, Ohnsorge does not disclose or suggest a portable communication device that includes an active matrix liquid crystal display panel including an active matrix circuit and an array of at least 300,000 pixel electrodes; a light source for the liquid crystal display panel; and a lens magnifying an image displayed on the display panel, wherein all of these are located on a single optical axis extending along a line of sight of the user.

The Examiner cites Spitzer to remedy the deficiencies of Ohnsorge in that Ohnsorge does not teach an active matrix liquid crystal display as claimed by Applicants. However, Spitzer does not disclose or suggest a portable wireless communication device as claimed in the amended claims. In particular, in contrast to the Examiner's assertion, Spitzer does not disclose or suggest a portable wireless device including an active matrix liquid crystal display panel having an active matrix circuit and an array of at least 300,000 pixel electrodes. The passage of page 4, lines 27-32 that the Examiner referenced to (page 3, 1st full paragraph) does not discuss an active matrix liquid crystal display panel having an active matrix circuit and an array of at least 300,000 pixel electrodes:

The present system, by increasing the pixel density to at least 200 lines per centimeter, and preferably to over 400 lines per centimeter, provides for a lens-to-display distance of less than one inch. The lens-to-display distance is preferably in the range of 1.0-2.2 centimeters.

It is noted that the passage reproduced above recites numbers of lines per centimeter, but not numbers of pixel electrodes per centimeter. Moreover, Spitzer does not disclose or suggest a portable wireless device including an active matrix liquid crystal display panel having an active matrix circuit and an array of at least 300,000 pixel electrodes; a light source for the liquid crystal display panel; and a lens magnifying an image displayed on the display panel, wherein the active matrix liquid display panel, the light source and the lens are located on a single optical axis extending along a line of sight of the user. Thus, Spitzer does not remedy the deficiencies of Ohnsorge.

Suwa discloses a display apparatus employing *a point source of light* and mirror means for reflecting light which is emitted from the point source of light to eye lenses. As taught at column 2, lines 46-49 of Suwa, the point light source is located *between* left and right eyes and light emitted by the point light source is directed by eye lenses to each eye, respectively. Also, as taught at column 4, lines 2-9 and in Fig. 3 and 5 of Suwa, the point source of light, such as tungsten lamp **24A**, is located at *central* supporter **24**. Figs. 6 and 8A are side views of such optical systems (see column 4, lines 52-54), and do not convey the fact that the point source of light is in the line of sight of the user. There is no disclosure in Suwa of any embodiment

wherein the point source of light is on a single optical axis extending along a line of sight of the user.

It is noted that Applicants' claimed device employs an active matrix display panel, lens and a light source wherein they are located on a single optical axis extending along a line of sight of the user. Suwa does not disclose or suggest a display device wherein an active matrix display panel, lens and a light source are located on a single optical axis extending along a line of sight of the user. Moreover, Suwa does not disclose or suggest a display device that includes an active matrix liquid crystal display panel having an active matrix circuit and an array of at least 300,000 pixel electrodes; a light source; a display driver circuit coupled to the active matrix circuit; and a lens for viewing by a user, wherein the active matrix liquid display panel, the light source and the lens are located on a single optical axis extending along a line of sight of the user, as is claimed by Applicants.

The other remaining references cited by the Examiner, Ohnsorge, Spitzer, Nathanson, Shennib and Suzuki, do not remedy the deficiencies of Suwa and Ohnsorge. Specifically, Nathanson discloses a portable telephone that employs a cathode ray tube. Suzuki discloses a goggle type image display apparatus. Shennib discloses a headset-based hearing tester and hearing aid programming instrument. However, as with Ohnsorge, Suwa and Spitzer, these secondary references do not disclose or suggest a portable communication device having an active matrix liquid crystal display panel including an active matrix circuit and an array of at least 300,000 pixel electrodes; a light source; and a lens that are located on a single optical axis extending along a line of sight of the user, as recited in Applicants' claimed invention. In particular, Suzuki, which discloses a lens, an LCD and a backlight, teaches away from having all the elements (i.e., the lens, the LCD, and the backlight) along a common linear axis with the eye. Suzuki, as seen in Figure 2, places the display (11) and backlight (12) in a plane with the lens (14) which is generally perpendicular to the common linear axis of the eye and the lens.

In sum, as discussed above, the primary reference, Ohnsorge, does not disclose or suggest such a portable communication device as recited in Applicants' claimed invention. As discussed above, the secondary references, Spitzer, Nathanson, Suzuki, Shennib and Suwa do not remedy the deficiencies of Ohnsorge. Therefore, Ohnsorge, Spitzer, Nathanson, Suzuki and Shennib, either separately or in combination, do not teach the claimed invention, as amended, and do not

render Applicants' claimed invention of independent Claims 21, 40 and 107 obvious. Claims 23-29, 32-34, 36 and 38 depend from independent Claim 21. Claims 42-48, 51-55, 57-58, 86-93, 98-99, 101-102 and 104-105 depend from independent Claim 40. Therefore, the subject matter of dependent Claims 23-29, 32-34, 36, 42-48, 51-55, 57-58, 86-93, 98-99, 101-102 and 104-105 also is non-obvious in view of Ohnsorge, Spitzer, Nathanson, Suzuki, Shennib and Suwa, taken either separately or in combination, at least for the aforementioned reasons. Claims 35 and 39 have been canceled. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw these rejections.

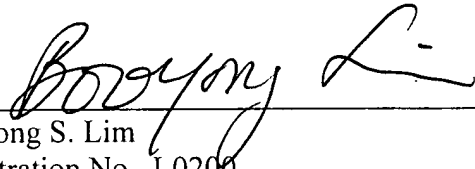
CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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